

REMARKS

Claims 23, 25, 26 and 28-31 were rejected under 103(a) in view of the newly cited Duhaime reference in view of Arnold as a new grounds of rejection rendering the prior response moot. New claims 32-36 have been added and the remaining claims 6-9 and 14-22 were withdrawn from consideration pursuant to a final restriction requirement which was timely traversed.

Claim 23

Reconsideration and withdrawal is requested of the rejection under 103(a) of claim 23 as being unpatentable over the newly cited Duhaime reference in view of Arnold.

Duhaime

Duhaime discloses a blow molded fuel tank 12 with a multi-layer wall having an EVOH barrier layer 24 disposed between inner and outer layers 22 and 20 of HDPE. As shown in Figure 2, after blow molding, a protrusion 26 is severed by knives 32 to form an open nipple 36 into which a closure plug 42 is subsequently inserted and heat welded. As shown in Figure 4, the plug has an inner layer 44 with an enlarged head, a barrier layer 48 received on the head and a separate outer layer 46 received over the barrier layer.

Contrary to the contention in the Office Action, Duhaime does not disclose or teach that the closure plug 42 “may be manufactured simultaneously with the container.” To the contrary, in column 3 at lines 11-12 Duhaime states “closure plug 42 may be manufactured by simultaneous injection molding or may be fabricated in separate components and assembled together through welding or bonding.” When read in the context of the entire disclosure, this statement merely teaches skilled persons that (1) the plug is made separately from the tank 12 and (2) the inner, barrier and outer layers 44, 46, 48 of the plug 42 may be injection molded simultaneously which is the conventional prior art approach to forming closure plugs for fuel tanks. Duhaime also indicates that alternatively the three layers 44, 46, 48 may be each separately fabricated and then assembled together through welding or bonding. Nowhere does Duhaime contain any disclosure, suggestion or teaching at all that the plug 42 could be formed simultaneously

with and utilizing the same mold in which the fuel tank is blow molded much less utilizing the flash produced by such blow molding to compression mold a closure plug simultaneously with and from the flash produced by blow molding the container. The statement that the plug is produced by “injection molding” is directly contrary to the interpretation set forth in the Office Action and directly contrary to applicant’s concept of compression molding a plug or cover simultaneous with blow molding a fuel tank and as part and parcel of the flash produced during blow molding of the fuel tank.

Arnold

Arnold discloses a container 10 for shampoo with a body 12 which is blow molded with a large fill port 16, a small dispensing port 18 and a compression molded integral closure flap 14 with live hinges 34 and 50, a first closure portion 40 with snap fingers 46 and a bead 54 for releasably closing the fill port 16, and a second closure portion 42 with a plug 48 for releasably closing the dispensing port 18. In use, the container is initially filled (and may be refilled) through the large port 16 which is closed by the portion 40 and bead 54 and releasably retained by snap fingers 46. When squeezing the container, its contents are dispensed through the small port 18 which is releasably opened and closed by the plug 48 of the portion 42. The container 10 is made from a parison having a wall with a single layer of material which does not have any fuel vapor barrier protection, its closures are never separated from the container, and the closures are not welded or otherwise permanently attached and sealed to the container.

Claim 23 is Patentable

Whether considered alone or in combination, Duhaime and Arnold do not disclose, suggest, teach or make obvious to skilled persons applicants basic concept, specific construction and arrangement as defined by method claim 23 nor its significant practical advantages, for at least the following reasons. Contrary to the contentions in the Office action, Duhaime does not suggest or disclose simultaneous blow molding of a container having a vapor barrier layer and compression molding in the flash produced by the blow molding a cap having at least one vapor barrier layer and thereafter forming an opening through the container, separating the cap from the flash, disposing the cap over

the opening and heat welding the cap to the container circumferentially continuously to permanently attach and seal the cap to the container to provide a fuel vapor barrier for the opening. Indeed, Duhaime teaches away from applicant's concept and construction as defined by method claim 23 by disclosing blow molding of a fuel tank with a protrusion 26 therein and thereafter separating a portion of the nipple from the blow molded tank and discarding it. Separately and independently in a different mold and by a different process a closure plug 42 is injection molded or the components 42, 46 and 48 of a plug 42' are separately fabricated, assembled and attached together by welding or bonding. Thereafter, this separately injection molded or fabricated plug 42 is inserted in the opening in the tank and heat welded to the tank.

These basic, significant and numerous deficiencies of Duhaime are not disclosed, suggested or taught by Arnold whether considered alone or in combination with Duhaime. Indeed, Arnold simply discloses and teaches a method of making a one piece shampoo container with a single layer wall in which the body of the container is blow molded and an integral closure flap with living hinges is simultaneously compression molded so that the closures may be releasably inserted into and removed from openings in the container formed by and during blow molding of the body of the container.

Certainly when viewed without hindsight knowledge of applicant's invention there is no suggestion, disclosure or teaching that these references should be combined to achieve applicant's specific concept, construction and arrangement as defined by amended claim 23 or its significant practical advantages. Indeed, if combined without a hindsight view of the applicant's invention, they do not disclose, suggest or make obvious to skilled persons applicant's method invention as defined by claim 23.

The Duhaime and Arnold references do not contain any disclosure, suggestion or teaching to skilled persons as to which of their numerous method steps should be discarded and which selected, rearranged and recombined with steps not disclosed in the prior art to achieve applicant's specific concept, construction and arrangement as defined by claim 23 and its significant practical advantages.

In addition, neither these references nor the skill in the art contain any suggestion, teaching or motivation that they should be combined at all much less in the manner suggested in the Office Action which must have been done utilizing the teaching of applicant's invention which is an impermissible hindsight reconstruction of the references which is explicitly prohibited in applying the non-obvious subject matter test of 103(a).

Finally, Arnold is non analogous art which would not be considered by persons skilled in developing methods of manufacturing blow molded fuel tanks having a vapor barrier layer which must be essentially continuous throughout to sufficiently limit the permeation and emission to the atmosphere of a low enough level of hydrocarbons to meet the stringent Federal and State of California mandatory automotive vehicle environmental emission standards.

Accordingly, for at least these reasons claim 23 defines patentable subject matter over the newly cited Duhaime reference and the newly proposed combination of the Duhaime and Arnold references.

Claims 25, 26 and 28-31

Each of the claims 25, 26 and 28-31 is ultimately dependent on method claim 23 and defines patentable subject matter for at least the foregoing reasons.

Furthermore, dependent claim 29 further defines the method of claim 23 wherein the cap has twice as many vapor barrier layers as the vapor barrier layer(s) of the container. Accordingly, claim 29 also defines patentable subject matter for at least the additional reasons for which new claim 32 does so.

Claim 32 is Patentable

New independent claim 32 defines applicant's method as including the steps of closing the mold halves together to receive and compress two overlapping portions of the parison to form at least one flash section with at least one cap therein having twice as many vapor barrier layers as the vapor barrier layer(s) of the blow molded container.

Neither Duhaime nor Arnold, whether considered alone or in combination, disclose, suggest or make obvious to skilled persons any method of blow molding a container with vapor layer of polymeric material in which the molds halves close on

overlapping portions of the parison to form at least one flash section with a cap therein having twice as many vapor barrier layers as that of the blow molded container. Neither of these references, whether considered alone, in combination, or in combination with any of the other cited art, disclose, suggest or teach any container construction having a sealed cap with twice as many vapor barrier layers as the body of the blow molded container. Accordingly, new method claim 32 defines patentable subject matter for at least these reasons as well as the reasons for which claim 23 does so.

New claims 33-36

Each of new claims 33-36 is ultimately dependent on new claim 32 and hence defines patentable subject matter for at least the foregoing reasons.

Conclusion

For at least these reasons each of claims 23, 25, 26, 28-31 and new claims 32-36 define novel and patentable subject matter over the proposed combination of the Duhaime and Arnold references and should be allowed.

If after considering this response the Examiner is of the view that any of these claims are not allowable a telephone interview with applicant's undersigned attorney, William Francis, is requested. The Examiner is asked to initiate this interview by telephoning William Francis at (248) 689-3500 who normally can be reached Monday-Friday from 9 a.m. to 5 p.m.

A copy of newly added claims 32-36 is enclosed for the convenience of the Examiner.

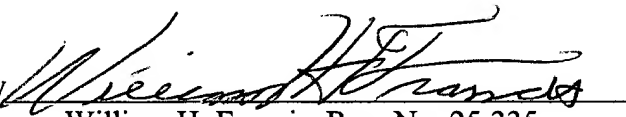
We previously paid for a total of 22 claims and there are now 25 claims remaining in this application. Therefore, we are enclosing a check for \$54.00 to cover the fee for the additional claims. If the enclosed check is insufficient to cover the additional claim fees due as determined by Patent Office calculations, it is hereby authorized and respectfully requested that they be charged to our Deposit Account No. 50-0852.

Respectfully submitted

REISING, ETHINGTON, BARNES, KISSELLE,
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WHF:sjw

Enclosures

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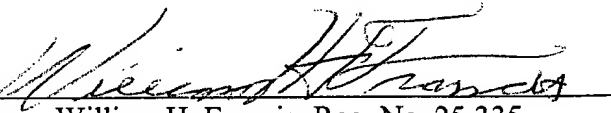
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